CLAIMS

We claim:

1.   A handwriting recognition user interface (HUI) for entering handwritten text and individual characters on a portable device having a touch-enabled input screen, said HUI comprising:

a text input area residing in a predetermined portion of a touch-enabled input screen;

a word entry area in said text input area;

a character entry area in said text entry area; and

a recognition engine configured to recognize words written in the text input area and individual characters written in the word entry area.

2.   A HUI as in claim 1 including memory storing one or more dictionaries, said recognition engine matching each handwritten word against words in said one or more dictionaries and providing a probability score indicative of the likelihood that each given word is a correct interpretation of the handwritten input word.

3.   A HUI as in claim 1 further comprising:

a pop-up word list displaying words identified by said recognition engine as being likely matches for a handwritten word entry; and

a pop-up character list displaying characters identified by said recognition engine as being likely matches for a character entry.

4.   A HUI as in claim 3 further comprising one or more action icons on a side of said touch-enabled screen.

5.   A HUI as in claim 4 wherein selecting one of said icons selects an editing operation selected from the group consisting of: inserting a space, backspacing, deleting, capitalizing recognition result, and undoing insertion of a last word recognition result.

6.   A HUI as in claim 5 wherein a stylus entry outside of said text input area selects one or more characters of a previously entered word, whereby characters are entered into said character entry area, entered said characters replacing said selected one or more characters.

7.   A personal digital assistant (PDA) capable handwritten text entry, said PDA comprising:

a touch-enabled input screen;

a recognition engine capable of recognizing handwritten words and characters;

one or more dictionaries containing a plurality of words;

a communication port for communicating with a remotely connected computer, data being selectively transferred between said remotely connected computer and said PDA;

a local storage storing applications to be run on said PDA, said main dictionary and application data;

a plurality of switches providing manual input to said PDA; and

a handwriting recognition user interface (HUI) comprising:

a text input area residing in a lower portion of said touch-enabled input screen, said text entry area including a word entry area and a character entry area, handwritten words being entered into said word entry area a single word at a time, recognition results being displayed on said touch enabled screen outside of said text input area, entries made in said word entry area being handwritten word entries and entries beginning in said character entry area being characters,

a pop-up word list listing words identified by said recognition engine as likely matches to a handwritten word,

a pop-up character list listing characters identified by said recognition engine as likely matches to a character entry, and

one or more action icons displayed together on a side of said touch-enabled screen and providing access to editing functions for editing previously recognized displayed words.

8.   A PDA as in claim 7, wherein said text input area occupies at least one third of said touch-enabled screen and spans said touch-enabled screen's width.

9.   A PDA as in claim 8 wherein said communications port is a wireless communications port, e-mail messages being communicated over said wireless communications port responsive to an e-mail address entered a character at a time in said character entry area.

10.   A PDA as in claim 8 wherein said applications stored in said local storage includes a browser application uniform resource locators (URLs) being selectively provided to said browser one character at a time from said character entry area.

11.   A PDA as in claim 8 wherein selecting one of said button icons selects an editing operation selected from the group consisting of: inserting a space, backspacing, deleting, capitalizing recognition result, and undoing automatic insertion of a last recognition result.

12.   A PDA as in claim 11 wherein a stylus entry at a previously entered displayed word is recognized as selecting one or more characters of said previously entered displayed word, whereby characters are entered into said character entry area, entered said characters replacing said selected one or more characters.

13.   A method for providing textual information to a computer, said method comprising the steps of:

a)   receiving an entry from a text input screen area;

b)   determining whether said received entry was made in a word entry area or in a character entry area on the screen input area; and

c)   passing said received entry to a handwriting recognition engine, entries determined to have been made in said word entry area being recognized as handwritten words and entries determined to have been made in said character entry area being recognized as characters entries, said handwriting recognition engine identifying matching words for handwritten word entries and matching characters for character entries.

14.   A method as in claim 13 further comprising:

d)   receiving a probability score from said recognition engine, said probability score indicating a likelihood that a corresponding stored entry matches said received entry, said stored entry being a dictionary entry for a handwritten word entry and a character for a character entry; and

e)   displaying a list of one or more stored entries in descending order according to said probability score.

15.   A method as in claim 13 further comprising repeating steps a-e for a plurality of character entries, said plurality of character entries being concatenated to form a character string.

16.   A method as in claim 15 wherein said character string is a uniform resource locator (URL).

17.   A method as in claim 15 wherein said character string is an e-mail address.

18.   A method as in claim 15 wherein said character string is stored in one of said one or more dictionaries for subsequent word recognition.

19.   A computer program product for interfacing handwritten input with a computer, said computer program product comprising a computer usable medium having computer readable program code thereon, said computer readable program code comprising:

computer readable program code means for receiving textual input, textual input including handwritten words and individual characters;

computer readable program code means for converting said textual input into one or more characters;

computer readable program code means for storing a plurality of correctly spelled words;

computer readable program code means for providing a probability score indicating a likelihood that a corresponding string of one or more characters matches said textual input; and

computer readable program code means for selecting a list of one or more character strings for display in descending order according to said probability score.

20.   A computer program product for interfacing handwritten input with a computer as in claim 19, further comprising:

computer readable program code means for determining whether a textual input is a single character or a handwritten word.

21.   A computer program product for interfacing handwritten input with a computer as in claim 20 wherein the computer readable program means for converting textual input into one or more characters converts said textual input into a single character when said input is determined to be a single character and into a word when said input is determined to be a handwritten word.

22.   A computer program product as in claim 21 wherein said probability score indicates the likelihood that a corresponding stored correctly spelled word matches a handwritten entry when said input is determined to be a handwritten word and the likelihood that a corresponding character matches an input character when said textual input is determined to be a single character input.